

Crayfish Capture and Data Collection Protocol

What You Need:

- ☐ Ruler (with metric scale)
- ☐ Fine-mesh dipnet with 4-8' handle
- ☐ Hook pole with 4-8' handle
- ☐ Umbrella traps (multiple)
- ☐ Minnow/crayfish traps (optional)
- ☐ Bait (chicken wings/bones, hot dogs, cat food, dog food, etc)
- ☐ 1 or 2 buckets to hold crayfish harvested from traps
- ☐ Crayfish data sheets
- ☐ Pen or pencil
- ☐ Twist ties (or other means to secure bait to the inside of traps)
- ☐ Cord or twine (for minnow/crayfish trap leashes)
- ☐ Fishing bobber or float (one per each umbrella trap)
- ☐ Small fine-mesh dipnet (optional)
- ☐ Ice chest with lots of ice for transporting dead crayfish back to camp or home (optional)
- ☐ Fishing license, if 14 years or older

In the Field:

1. When arriving at a new location, look for the presence of crayfish (i.e. observe live crayfish in the water or dead crayfish parts). If crayfish are found, proceed with the remainder of the protocol.
2. Setting and Checking the Minnow/Crayfish Traps:
 - a. Place a piece of bait inside the trap. Secure bait with a twist tie if needed.
 - b. Close and secure the trap with a clip
 - c. Tie a length of cord or twine (approximately 15 feet) to the clip on the outside of the trap.
 - d. Be sure to hold the other end of the cord, before tossing the trap in the water!
 - e. Make sure that one corner of the trap is above the water. This will insure that other animals (like frogs or gartersnakes) that may get trapped will have access to air.
 - f. Tie the other end of the cord to a tree or other secure object on the shore.
 - g. This trap is intended to be in the water for a longer duration of time. It may be kept in the water overnight or for several hours of the day. However, do not let the trap sit unattended for longer than eight hours, since unchecked traps could endanger animals that were caught unintentionally.
 - h. Before emptying the trap, fill the bucket about one third full with water.
 - i. Use the cord to pull the trap to shore.
 - j. Open the trap and empty the contents into the bucket.
 - k. Return any animals that are not crayfish back into the water.
3. Setting and Checking the Umbrella Traps:
 - a. Using a twist tie or similar object, secure some bait to the bottom of each umbrella trap.
 - b. Attach a bobber or float to the top of each trap.
 - c. Toss each of the baited traps into the water, at different spots along the shoreline.
 - d. While waiting for crayfish to come out, fill about one third of the bucket with water.



- e. After a few minutes, observe each trap to see if crayfish have crawled on top to get to the bait. This may be difficult to determine in muddy water, so use the following step when checking on your umbrella traps.
- f. To pull a trap, use the hook pole to snare the trap near the bobber or float. Quickly pull the trap up out of the water, while at the same time using the fine-mesh dipnet to scoop under the trap in case any crayfish fall out.
- g. Place any captured crayfish into the bucket.
- h. Remove any animals that are not crayfish, and return those to the water.
- i. Return the baited trap to the water, and move on to your next trap. Repeat these steps as necessary until you are finished collecting crayfish.



4. Crayfish Data Collection:

- a. Remove crayfish from the bucket one at a time. It is best to grab the crayfish with your thumb and forefinger on the carapace behind each of its claws.
- b. Turn the crayfish over to expose its underside.
- c. If necessary lay its tail flat.
- d. Observe just behind the swimmerettes. If a small hole or port is found, it is a female. If an extra set of swimmerettes is present, it is a male. See attached comparison photos.
- e. Turn the crayfish over and lay it flat.
- f. Measure the length of the carapace in millimeters. This will extend from the point between the eyes straight back to the end of the main shell before the tail segments start. See attached illustration.
- g. Record its gender/sex and length on the data sheet.



5. Removing Crayfish from the Collection Site:

It is illegal to transport live crayfish through most parts of Arizona. To take the crayfish home or back to camp, they must be dead. We recommend burying them under a thick layer of ice cubes in an ice chest. Freezing will kill them fairly quickly and humanely.

Returning from the Field

1. Crayfish can be cooked, or you can contact a local animal rehabilitation facility to see if you can donate the crayfish as food for captive or injured wildlife.
2. Data sheets should be submitted online: crayfish@azgfd.gov or by mail to: Jeff Sorensen at AZ Game & Fish Dept, WMNG, 5000 W Carefree Hwy, Phoenix, AZ 85086.
3. Cleaning the Gear:
 - a. All of the equipment used for crayfish trapping needs to be cleaned and sterilized. This is particularly important if they will be used at a different locations the next time.
 - b. Prepare a 1:100 bleach-water solution bath (**3 cups of bleach in 20 gallons of water**); you may want to use vinyl gloves since this solution will dry out your hands.
 - c. Dip all traps, dipnets, etc. in the bleach solution, then rinse with municipal water.
 - d. Let the equipment dry in full sun for at least 12-24 hours, then pack away.